TITLE 327 WATER POLLUTION CONTROL BOARD

#02-327(WPCB)

SUMMARY/RESPONSE TO COMMENTS FROM THE SECOND COMMENT PERIOD UNDER IC 13-14-9-7

The Indiana Department of Environmental Management (IDEM) requested public comment from December 1, 2002, through December 31, 2002, on the draft of amendments to 327 IAC 5-1-1.5 and 327 IAC 15-3-2 and new rule 327 15-14 concerning on-site residential sewage discharging disposal systems in Allen County. IDEM received comments from the following parties during the comment period:

Daniel W. Bloodgood, Clinton County Sanitarian (DWB)
Gary Chapple, Fort Wayne-Allen County Department of Health (GC)
William Hartsuff, Elkhart County Health Department (WH)
Don Schnoebelen, Elkhart County Health Department (DS)

Following is a summary of the comments received and IDEM's responses thereto:

Comment: Public health is paramount for a community's growth and prosperity. Though the citizens of Allen County are in need of a solution for the predicament they are in, a rule to sanction technology that is energy and maintenance intensive and is limited in its application and environmental appropriateness should not supercede good sanitary practices that are documented to be effective. In the least, a maintenance district must be established to administer the permitting process compliance assessment for the on-site discharging treatment systems. The likelihood is small that Allen County will have enough personnel to oversee and administer such a program effectively. If this program becomes another unfunded mandate, then voluntary compliance will be all there is to rely upon, and it seems doubtful that will be sufficient. (WH)

Response: IDEM is the administrator of the National Pollutant Discharge Elimination System (NPDES) permit process and has the responsibility to assure compliance with any permit it issues. The district will be required to work with the owners of on-site waste management systems to assure compliance with the NPDES permit limits and state water quality standards.

Comment: How can a reduction in the number of public comment periods be justified for this rule that will likely have a significant deleterious environmental and economic impact on the vaguely informed, affected parties within Allen County? What alternatives were dismissed or so limited in scope so as to justify this abbreviated decision making process? (WH)

Response: Senate Enrolled Act (SEA) 461-2002 requires IDEM to put in place a NPDES general permit for on-site waste management systems in Allen County; thus, there are no other alternatives. The rulemaking, therefore, fits the criteria under IC 13-14-8-7 for reducing the number of public comment periods necessary to complete the rulemaking. The affected citizenry has additional opportunity to comment at the two public hearings held before this rule is final adopted. More importantly, SEA 461-2002 requires public hearings for the formation of the district, the formation and operation of which more directly affect the citizenry than this NPDES general permit rule. IDEM provided informational materials at the initial public hearing on formation of the district. The information was designed to inform affected persons of the role of the NPDES permit in the installation and use of on-site waste management systems.

Comment: Some fine tuning will be needed as the relationship between the various entities is further defined; otherwise, this rule is thought out well. (GC)

Response: IDEM continues to work with EPA to develop a rule that meets the requirements for NPDES permits. Additionally, IDEM will continue to work with all affected

parties to refine and clarify relative roles and responsibilities under this rule.

Comment: The potential for environmental degradation that can be unleashed by allowing the use of this type of on-site technology without regard to the water quality of the region can be realized by reviewing the case histories of similar implementation in and around the suburbs of Cincinnati, Ohio. (WH)

Response: IDEM is aware that this type of system is a developing technology. All systems are required to meet state water quality standards. The environmental degradation from existing failing septic systems must be addressed in some manner until such time as all such waste can be properly treated at wastewater treatment plants.

Comment: This rule is intended to regulate and permit point source discharges from existing, failing, and permitted on-site sewage disposal systems, but it is not to be misused to facilitate the permitting and implementation of discharging systems utilizing a machine in lieu of either on-site technology or connection to municipal facilities in the case of new construction. (WH)

Response: SEA 461-2002 authorizes the Indiana State Department of Health to study the use of, develop plans and specifications for, and adopt rules for the use of specific technologies as alternatives to currently operating systems that are either under-performing or have failed. This legislation also directs the local health department to issue operating permits for on-site residential discharging systems that are installed to replace existing sewage disposal systems that have failed and cannot otherwise be repaired or replaced. SEA 461-2002 requires that facilities permitted under the NPDES general permit as proposed in 327 IAC 15-14 meet state water quality standards. The general permit itself does not prescribe or promote specific technology to meet those water quality standards.

Comment: The commissioner's findings and determination published in the Indiana Register under the heading "Background" mention that the rule has provisions for mitigation bypasses and quality control within the requirements of the operation permit. These concepts should not be used, as they have in the past, to barter and justify the degradation of one ecosystem over another, such as stream eutrophication vs. ground water protection. (WH)

Response: IDEM agrees that transferring pollution from one area to another is not a sound environmental policy, and that is not the intent of this rule. Discharges from on-site waste management systems under this rule are required to meet state water quality standards.

Comment: Under existing 327 IAC 15-3-2(5), the requirements for content of a notice of intent (NOI) letter include the name of a municipal storm sewer operator and the ultimate receiving stream if the discharge from an on-site discharging system is connected to a storm sewer. Combined sewer overflow regulations have been requiring CSO communities to rid themselves of CSOs because they are recognized as a major source of surface water contamination. Why now should Allen County or any other location be permitted to utilize these separate and reasonably clean conveyances for point source discharges that are rich in E. coli and nutrients without requirements for frequent monitoring and assessment of the cumulative effects of multiple discharges? (WH)

Response: EPA recognizes on-site waste management system technology as a bridge between existing, failing septic systems and sewering of all wastes. Environmental degradation from failing septic systems cannot be ignored. Discharges from these on-site systems are required to meet state water quality standards. Existing regulation at 327 IAC 15-3-2(5) recognizes that, in some cases, a direct discharge to waters is not feasible, but discharge to storm sewers may be necessary where authorized by local ordinances. IDEM does not encourage discharge to storm sewers under 327 IAC 15 but is making it clear that such discharges are regulated by the NPDES

program.

Comment: The applicability of this rule according to 327 IAC 15-14-2 is limited to existing on-site systems or the replacement of such systems that were installed on or before July 1, 2002. The July date should be removed from the draft rule because it will create problems for those in Allen County needing this type assistance. Every effort is being made to refine the process and identify problem soils prior to construction, but, if a site meets all the requirements of the current state department of health rules, then Allen County is unable to deny a permit. Some sites will, therefore, fail no matter when the system is constructed. A system that fails due to soil problems will likely need a discharging solution. (GC)

Response: IDEM agrees that SEA 461-2002 is not so limiting in its applicability. Reference to the date has been removed from the draft rule.

Comment: What method will be used to evaluate whether an existing system is failing and what criteria will be used to determine if an on-site system is eligible to use the discharging technology allowed by this draft rule? Threshold values for pathogens, nutrients, and chemicals must be established before any compulsory implementation of the rule can be considered. (WH)

Response: Under SEA 461-2002, the local health department is required to issue an operating permit for a new on-site waste management system only after determining that the existing septic is failing to meet public health standards. Additionally, the local health department is charged with adopting procedures for monitoring on-site waste disposal systems, and the district formed under SEA 461-2002 will be required to monitor and keep records for each system within the district assessing compliance with the permit limits established by this rule and state water quality standards.

Comment: 327 IAC 15-14-3(6) defining "on-site residential sewage discharging disposal system" provides conflicting ideas between the term itself and its definition regarding "discharges effluent off-site". (DWB)

Response: The term is so defined in statute at IC 13-11-2-144.7. Such a system is not a closed loop system. It is precisely because the system does discharge effluent off-site that a NPDES permit is necessary.

Comment: Table 1 in 327 IAC 15-14-7 contains daily maximum limits for $CBOD_5$, TSS, and ammonia-nitrogen that may not be realistic according to the manufacturers of units designed for these on-site applications. It is requested that these limits contained in the table be an average value, and the daily maximum limit should be established at twice the values currently in the table for each of the named parameters. Limits established at these suggested values would allow for inevitable fluctuations in system performance while maintaining the high overall water quality standards necessary. (GC)

Response: SEA 461-2002 requires that these treatment systems discharge effluent that does not violate water quality standards. The local health department and the State Department of Health are to ensure that technologies, that are approved for use under the general permit according to this rule, are capable of meeting these standards.

Comment: The monitoring regimen contained in section 7 of the draft rule is not stringent enough. The technology to be allowed by this draft rule is untested in Indiana and should be considered as alternative or experimental. Existing state department of health requirements for soil based technology, those discharging to a soil absorption field not to a receiving stream, mandate a minimum of monthly sampling for the physical parameters listed in table 1 of section 7 and should be the minimum monitoring standard for these on-site discharging units. Several other counties are considering such a monitoring standard; establishing some sort of baseline data would be prudent. Telemetry that is currently available allows for round-the-clock monitoring of

some of these parameters, but it is no substitute for proper operation, maintenance, or planning. (DWB, DS)

Response: IDEM has revised the monitoring requirements for several effluent parameters in section 7 of the draft rule and has added monitoring requirements for effluent flow, pH, and total residual chlorine. Monitoring frequencies may be revised in the future if IDEM determines a need based on compliance trends.

Comment: Draft rule 327 IAC 15-14 will allow on-site discharging systems to use machines that are actually small, individually sized, sewage treatment plants receiving the same basic raw constituents that enter a municipal treatment plant. It is irresponsible to allow discharges from individual treatment machines that would otherwise be prohibited discharges from a municipal treatment plant. Specifically missing from the list of too few parameters required to be monitored by section 7, table 1 of the draft rule is a phosphate or phosphorus limit. Municipal treatment systems monitor and treat for this parameter and so should these individual on-site discharge systems. (WH)

Response: Indiana water quality standards do not include criteria for phosphorus or phosphates. NPDES rules as contained in 327 IAC 5-10-2 and 327 IAC 5-10-4 require phosphorus removal for certain point source discharges that discharge directly to or within forty (40) miles of a lake or are within the Great Lakes watershed.

Comment: The draft rule requires no use of or monitoring for disinfectants. Both are needed as well as monitoring for residual chlorine in the receiving waters. (DWB, DS)

Response: Table 1 in section 7 of the draft rule has been amended to include monitoring requirements for total residual chlorine in the event that chlorine is used as the disinfectant.

Comment: Recent studies show that *E. coli* replicate easily in the environment. The receiving waters of these on-site discharging disposal systems need to be monitored for *E. coli*. Will background levels of receiving streams be considered as two hundred thirty-five (235) colonies per one hundred milliliter may be deleterious to the receiving stream? (DWB, DS)

Response: Indiana water quality standards for *E. coli*, as contained in 327 IAC 2-1.5-8(e), require that *E. coli* bacteria not exceed two hundred thirty-five (235) count per one hundred (100) milliliters in any one (1) sample. These standards are used directly as effluent limitations to the undiluted discharge in accordance with 327 IAC 5-2-11.4(d)(2). The Indiana water quality standards for *E. coli* are protective of full body recreational contact.

Comment: Cumulative effects on a single stretch of receiving stream from multiple discharges of on-site disposal systems need to be evaluated. There also needs to be sampling done of the receiving stream at a specified distance, for example one hundred feet, downstream of the final point source discharge from an on-site system entering the receiving stream. (DS)

Response: At this point it is unclear which receiving streams will be impacted by these systems. IDEM intends to monitor the effects of these systems in the watershed and will continue to work with individuals and the district to closely monitor any cumulative effects. If it is determined that any particular receiving stream is being impacted, IDEM has the authority to require additional sampling and monitoring.

Comment: The prohibitions listed in subdivisions (1) through (5) of 327 IAC 15-14-7(d) seem to be aesthetic concerns, but they will not be achievable without limitation placed on phosphorus discharged from the on-site discharging systems. Indiana's state legislature recognized many years ago the detrimental water quality ramifications from phosphorus creating eutrophication in surface waters and acted appropriately by creating the phosphate ban for detergents. Draft rule 327 IAC 15-14, however, is countercurrent with Indiana's long-standing law against allowing phosphates and phosphorus to reach our state waters. (WH)

Response: Indiana water quality standards do not include criteria for phosphorus or phosphates. The conditions listed in subdivisions (1) through (5) are minimum narrative criteria that apply to all point source discharges. 327 IAC 5-2-11.1(h) and 327 IAC 5-2-11.6(a) require that these minimum standards be included in all NPDES permits. Violation of these minimum standards could result in additional permit conditions to protect water quality.

Comment: The draft rule does not address who will have the power and responsibility to enforce this rule. Will enforcement be done by the same local health department that allowed the illegal systems to be installed in the first place? (DWB)

Response: IDEM retains the ultimate authority to enforce any permit it issues as well as state water quality standards.

Comment: According to the draft rule with only twice annual monitoring requirements, an on-site discharging disposal system could potentially malfunction for six months prior to any action being taken to address a discharge of raw or partially treated sewage. (DS)

Response: The monitoring requirements for several effluent parameters in section 7 of the draft rule have been revised. Monitoring frequencies may be further revised if IDEM determines a need based on compliance trends. In addition to monitoring, these systems are subject to inspections and must be under the supervision of a certified operator.